REMARKS

The above amendment with the following remarks is submitted to be fully responsive to the Official Action of February 17, 2005. Reconsideration of this application in light of the amendment and the allowance of this application are respectfully requested.

Claims 1-37 were pending in the present application prior to the above amendment. Initially, the Applicants acknowledge with appreciation, the allowance of claim 26. In response to the Office Action, claims 1, 2, and 21 have been amended. Claims 27-37 were previously withdrawn from consideration. Therefore, claims 1-37 are still pending in the present application.

Referring now to the Office Action, the Examiner rejected claim 21 under 35 U.S.C. 112 as being indefinite for insufficient antecedent basis. In response, claim 21 has been amended to provide sufficient antecedent basis to overcome this rejection. Therefore, the withdrawal of this rejection is respectfully requested.

Referring again to the Office Action, claims 1, 3-7, 9-13, and 15-25 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,451,051 to Moenning et al. The Applicants disagree for the reasons set forth below.

In the Office Action, the Examiner asserts that Moenning discloses all the features of claim 1, and that the Moenning device would be able to cut or pierce tissue from within the body cavity out to an operating site, even though there is no suggestion of such use in the Moenning reference. Regardless of the Examiner's assertion, the Applicants note that there are numerous features recited in claim 1 that not disclosed in Moenning, as discussed in further detail below.

First, it is noted that the distal ring 15 on the surgical device of the present invention is carried on the cannula 6. This is in contrast to the sealing member 24 disclosed in Moenning which is carried on a separate sleeve. (See col. 8, lines 31-37). However, to more clearly recite this feature, claim 1 has been amended above to recite that the cannula has the distal ring provided thereon.

In addition, the Examiner appears to have misunderstood the function of a trocar which is to cut tissue. After the trocar has cut the tissue, the trocar must be removed to

allow instrument access. Otherwise, the cannula cannot carry out its function. If used internally, the trocar disclosed in Moenning would have to be removed after cutting by bringing it back through the hand access port, or through the surgical incision made for the hand access port. In contrast, the surgical device of the present invention is designed to be used from the direction starting inside the body cavity, to the outside the abdomen wall. The surgical device of the present invention significantly reduces the potential damage to internal organs that can be caused by known trocars when making the initial incision. If the Moenning trocar were used from inside the abdominal cavity out to an operating site as suggested by the Examiner, it would actually increase the danger of injury and damage to internal organs because, as noted, the trocar would have to be removed by bringing it back through the hand access port.

Furthermore, if the Moenning device was used inside to out, the sealing means of the cannula would be internally located since the trocar is carried within the cannula. In Moenning, this would create visibility and maneuverability problems as well as reducing operating space. In contrast, the seal of the present surgical device can be internal to the cannula, or is fixable by threading it to the cannula externally, after insertion.

Moreover, the Moenning device does not disclose that the trocar is removably attached to the cannula as specifically recited in claim 1. Applicant's previous argument filed December 10, 2004 discussed in detail, that the trocar of Moenning was not removably mounted on the cannula and thus, fails to anticipate the present invention. Nonetheless, claim 1 has been further amended above to specifically recite that the trocar is removably attached to the cannula instead of being mounted. In contrast, the trocar 16 of Moenning is merely positioned within the lumen 18 of the cannula 14 when the trocar is position at the first trocar position. This mere positioning is clearly shown in Figure 3 of Moenning, and discussed at Col. 7, lines 7-9. The Moenning trocar is completely removed from the lumen 18 of cannula 14 when trocar 16 is positioned at the second trocar position. (See Col. 7, lines 9-11 of Moenning).

In addition, Moenning does not disclose the feature of claim 1 which recites that the trocar provides a gas-tight cap for the cannula when the trocar is attached to the cannula, thereby enabling the trocar to be inserted into the body cavity through the access port, and to cut or pierce within the body cavity out to an operating site, with no escape of

gas from the body cavity. This feature of the trocar in providing a gas-tight cap when the trocar is attached to the cannula is important. In this regard, the specification where it states that because the trocar provides this gas-tight cap for the cannula, as the trocar pierces outwardly from the body cavity, there is no escape of gas which would collapse the cavity. (See specification, Page 3, lines 6-10). In contrast, as already discussed above, Moenning discloses that the trocar is positioned within the lumen of the cannula, and the Moenning trocar does not provide a gas-tight seal for the cannula.

Thus, as can be appreciated from the above remarks, the cited Moenning device does not disclose all of the claimed structural features of the applicant's device, and correspondingly would not be capable of performing the functions of the claimed invention for cutting or piercing tissue outwardly from within the body cavity out to an operating site. Indeed, there is absolutely no suggestion or teachings of the recited features or functions in the cited Moenning reference. Therefore, because the cited Moenning reference does not "teach every aspect of the claimed invention" as required under 35 U.S.C. § 102, the withdrawal of this rejection with respect to claim 1, and claims 2-20 and 22-25 ultimately dependent thereon, is respectfully requested. (See MPEP §§ 706.02 and 2131). Moreover, the allowance these claims are also requested.

In addition, with regard to claim 4, the recited extension shoulder 9 on the surgical device of the present invention functions to gently expand the tissue as the trocar cuts. In this way, the incision accommodates the cannula without widening the cut. The elasticity of the tissue ensures the cannula is held firmly as described. (See specification, Page 3, line 15-17). In contrast, the Moenning trocar is simply a cutting blade on a long thin shaft and does not include the recited extension shoulder. Correspondingly, claim 4 is patentable over the cited Moenning reference for the above reason in addition to its ultimate dependency on claim 1.

With respect to the Examiner's rejection of claim 5, and the limitation "guard means" recited therein, the Examiner appears to have misunderstood the term, referring the means as a "guide". The recited guard functions to protect the surgeon's hand. The surgeon holds the device in his hand, and inserts his hand through the hand access port or surgical incision. Therefore, reconsideration of this rejection is respectfully requested.

In regards to claims 6 and 7, the Examiner is correct that the distal ring provides the means for releasably attaching to the interior of the body. The distal ring 15 provided on the cannula of the present invention is an integral part of the cannula, and is not part of some additional component such as a sleeve as disclosed in the device of Moenning. Therefore, these claims are believed to be patentable over the cited Moenning reference for the above reason in addition to their ultimate dependency on claim 1.

In regards to the Examiner's rejection of claim 9, the Examiner appears to have misunderstood the reference to valve and loss of gas referred to in the claim. If the Examiner equates the Moenning sleeve as being equivalent to the cannula of the applicant's surgical device, then the sleeve does not have an internal valve as recited in claim 9. The lumen of the Moenning sleeve is not gas tight. It is only gas tight between the outer wall of the sleeve and the incision. The Moenning sleeve lumen only achieves a gas tight seal when a cannula is inserted through the sleeve lumen. Therefore, claim 9 is believed to be patentable over the cited Moenning reference for the above reason in addition to its dependency on claim 1.

With respect to the Examiner's rejection of claims 12 and 25, the Examiner for some reason considers that the anchor ring 52 acts as a valve that determines when air is contained or released. However, Applicant disagrees in that the Moenning reference does not disclose any component that functions as a valve as recited in these claims. The reference does describe a locking ring, but the ring locks the sleeve in place and does not function as a valve, and is clearly not a valve recited in the present claim. The valve of the applicant's device seals the cannula lumen. In addition, the anchor ring of the surgical device in accordance with the present invention can carry a functioning valve which allows instruments to be inserted and withdrawn at will without loss of gas. The Examiner seems to have misunderstood the nature of the sealing mechanism operating when the device is in place. Correspondingly, this improper rejection should be withdrawn and these claims allowed, since these claims are allowable based on their recited limitations and based on their dependencies.

Regarding the examiner's rejection of claim 13, the above noted remarks relative to claims 12 and 25 is believed to equally apply in that the anchor ring 52 of the Moenning reference is not a valve recited in the present claim. In fact, releasing gas using

components 52 and 24 is totally contrary to the nature of the device. The purpose of components 52 and 24 is to anchor and seal the gap between the Moenning sleeve and the incision so that the only exit for gas is through the seal of the inserted cannula, or through the sleeve when no gas seal is required (i.e. when the cannula is removed). In contrast, the valves of the surgical device of the present application are separated and distinct components, and are in addition to its distal and proximal sealing rings. They seal the lumen of the cannula. Correspondingly, the withdrawal of this rejection and the allowance of this claim are respectfully requested.

Regarding the Examiner's rejection of claim 15, the above noted remarks relative to claims 12 and 25 is believed to equally apply, and the withdrawal of this rejection and the allowance of this claim are requested.

Referring to the Examiner's rejection of claim 16, the recited diaphragm seal is in the context of it being contained within a separate component, i.e. a sealing housing. This sealing housing is attachable to the cannula, and is an internal sealing means which allows for the passage of instruments through the cannula while helping to retain a gas that seal through the lumen of the cannula. Clearly, the cited reference fails to disclose such a housing, and the withdrawal of this rejection and allowance of this claim are requested.

With respect to the Examiner's rejection of claim 17, it is noted that the seal housing of the present invention carries a sealing mechanism which is attachable to the cannula. The extended lip disclosed in Moenning referred to by the Examiner is integral to the sleeve, and does not house a seal. The seal housing is added to the cannula in the present invention, thus extending it externally. The sealing member 24 of Moenning appears to act in the opposite manner in that when formed by the compression exerted by locking member 52, the seal 24 shortens instead of lengthening. Thus, the cited reference also fails to anticipate the features set forth in claim 17, and this claim is believed to be patentable by the virtue of its dependency as well as features cited therein.

Regarding the Examiner's rejection of claim 18, this claim is believed to be patentable at least for the reason of its dependency on allowable base and intervening claims. It is also noted that the recited conical section of the surgical device of the present application houses a seal and also functions as an enlarged aperture to assist insertion of instruments by the surgeon. The conical sides act to guide the instrument head inwards

toward the seal. (See specification, Page 11, line 32 and Page 12, lines 1-2). In contrast, the conical tip of the Moenning sleeve merely functions to reduce the size of the sleeve to aid insertion through the incision when being made. Correspondingly, reconsideration and the withdrawal of this rejection is requested.

Regarding the Examiner's rejection of claim 19, this claim is believed to be patentable at least for the reason of its dependency on allowable base claim. In addition, it is noted that the insufflation port of the surgical device of the present application allows gas to be passed into the abdomen and retained, whether there is an instrument or not inserted through the cannula (6) of the Applicant's surgical device. The sleeve of the recited Moenning reference does not perform the function of the claimed insufflation port which allows gas to be passed whether there is an instrument or not. Thus, reconsideration and withdrawal of this rejection are requested.

Regarding the Examiner's rejection of claim 20, this claim is believed to be patentable at least for the reason of its dependency on allowable base and intervening claims. It is further noted that the insufflation lumen of the Applicant's surgical device is separate and distinct feature of the claimed device. The insufflation lumen 912 is carried on an exterior surface of the cannula (6) and incorporates a one way valve 903. The insufflation lumen of the applicant's surgical device can function when an instrument is inserted through the cannula. In contrast, the Moenning sleeve would not function to allow instrument insertion as a proximal end would have to be connected to a gas supply. Correspondingly, reconsideration and withdrawal of this rejection are requested.

Regarding the Examiner's rejection of claim 21, the Applicants respectfully disagree in that Moenning fails to disclose each and every feature of the recited claim. The part in the Moenning device indicated by reference number 44 is a guide member. Irrespective of the location of the guide member 44, the gas still passes through the central lumen 22 of the sleeve of which guide member 44 makes up a part. In contrast, claim 21 specifically recites "no escape of gas from the body cavity." Thus, the Examiner's anticipation rejection based on Moenning is believed to be improper, and the withdrawal of this rejection and the allowance of claim 21 are requested.

Regarding the Examiner's rejection of claim 22, it is noted that in contrast to the anchor ring of the Applicant's surgical device which is detachable and includes a cushion

means, the guide member 44 of the Moenning device is not detachable and does not include a cushion means. It is noted that the cushioning recited in claim 22 can be seen in Figures 9 and 13 of the present application. Clearly, such features are not disclosed in the cited reference, and the withdrawal of this rejection and the allowance of claim 22 are requested.

Examiner's rejection of claim 23 claiming that a distal ring of Moenning "acts as a cushion" is pure speculation by the Examiner in that nowhere in Moenning is the function or characteristic of the distal ring described as being that of a cushion. Thus, this rejection is improper and should be withdrawn.

Regarding the Examiner's rejection of claim 24, the recited security retainer is a detachable component formed to be fixed to the surgeons hand or a surgical instrument prior to insertion through the hand access port or incision. The proximal handle portion of Moenning is not a security retainer and does not perform the function thereof. Simply holding the housing on the trocar/cannula device as shown in Figure 4 of Moenning does not achieve the function of the security retainer. Therefore, claim 24 is believed to be patentable by the virtue of its dependency as well as features cited therein which is not disclosed in the cited reference.

Referring again to the Office Action, claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Moenning discussed above in view of U.S. Patent No. 4,601,710 to Moll. The Applicants respectfully disagree.

The trocar assembly disclosed in Moll is directed to a trocar having a tube containing an obturator and surrounded by a retractable protective shield. There is no disclosure in Moll relating to a surgical device formed to allow insertion of medical equipment, or any teachings to combine Moll with the device of Moenning. The Examiner is applying hindsight reconstruction to combine the Moenning and Moll references in that there is no teachings in either of the references to combine the references in the manner suggested by the Examiner. In any case, neither references disclose, teach, or otherwise suggest a surgical device that enables the trocar to be inserted into the body cavity to cut, or pierce, tissue outwardly from within the body cavity out to an operating site, with no escape of gas from the body cavity as recited in the base claim. Correspondingly, because Moll does not cure the deficiencies of the Moenning reference,

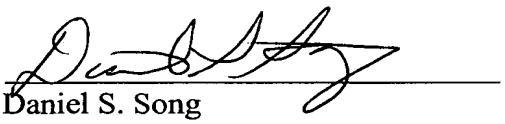
such combination of the cited references still fail to yield, or render obvious, the invention as claimed. Thus, the withdrawal of this rejection and the allowance of claim 2 are respectfully requested.

The Examiner's rejection of claim 8 is believed to be moot in view of the claim's dependency on an allowable base claim and an allowable intervening claim. Correspondingly, the withdrawal of this rejection, and the allowance of claim 8 are respectfully requested.

Finally, Examiner's rejection of claim 14 is also believed to be moot in view of the claims dependency on an allowable base claim and an allowable intervening claim. Nonetheless, it is noted that in the present invention, the seal (901) and valve (902) function to seal and regulate gas flow through the lumen of the cannula (6). In contrast, the seal 24 of the Moenning device and the locking member 52 that is interpreted somehow to be a valve 52, merely seals the gap between the sleeve's outer surface and the incision (i.e. opening 28). Thus, the cited components are in no way, equivalent to the recited seal and valve. Therefore, this rejection is believed to be improper and the withdrawal of this rejection, and the allowance of claim 14, are requested.

In view of the foregoing, it is submitted that the present application is in condition for allowance and a notice to that effect is respectfully requested. However, if the Examiner deems that any issue remains after considering this response, he is invited to call the undersigned to expedite the prosecution and work out any such issue by telephone.

Respectfully submitted,



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